

Application Serial No. 10/634,392
Reply to Office Action of December 15, 2004

PATENT
Docket: CU-3320

Amendments To The Specification

Please replace the paragraph in the Specification page 1, lines 14-23 with the following amended paragraph:

In order to improve a response time in an LCD, a technique using a high-speed response liquid crystal has been employed in general. ~~Further, this In addition, the~~ response time may be ~~more~~ further improved by utilizing the panel structures, such as a VA (Vertical Alignment) panel structure, an IPS (In Plane Switch) panel structure, an OCB (Optically Compensated Bend) panel structure and so forth, rather than ~~by~~ a typical TN (Twisted Nematic) panel structure. ~~The~~ Yet another technique of improving the response time may be to select also improved by a driving method such as a CCD driving method over others. ~~other than these panel structures.~~

Please replace the paragraph in the Specification page 2, lines 18-22 with the following amended paragraph:

As shown in FIGs. 1a and 1b, an impulse system is realized by providing a plurality of ~~module backlights~~ lamps 13 in a backlight module 11 disposed under a display panel 15, and then by performing a sequential turning on/off according to a principle similar to that in a CRT display.

Application Serial No. 10/634,392
Reply to Office Action of December 15, 2004

PATENT
Docket: CU-3320

Please replace the paragraph in the Specification page 2, line 23 to page 3, line 7 with the following amended paragraph:

Here, to obtain a satisfactory display image quality, the sequential turning on/off is synchronized with a gate signal at the same time. In other words, as in FIG. 2, the ~~backlights 14~~ lamps 13 located under a gate line become on-state when the gate signal is applied to the gate line, while the ~~backlights 14~~ lamps 13 become off-state when the gate signal is not applied to the gate line. That is, the on-state of the ~~backlights 14~~ lamps 13 is gradually shifted from the upper side of the display to the lower side thereof.

Please replace the paragraph in the Specification page 7, lines 2-7 with the following amended paragraph:

In a backlight unit structure 21 according to the present invention ~~has a structure~~, as shown in FIGs. 3A to 3C and 4-6, the structure 21 has a plurality of lamp units 23 and a rotation driver 31 and is disposed below a display panel. Each of the lamp units 23 is provided with a backlight lamp 23a and a reflection plate 27, the ~~the~~ [[a]] reflection plate 27 being ~~[[is]]~~ spaced a predetermined distance apart from the ~~the~~ [[a]] backlight lamp 23a, and then ~~the backlight lamp 23~~ is turned by a rotation driver 31. ~~Here, a reference numeral 29, not mentioned above, indicates a display area.~~

Application Serial No. 10/634,392
Reply to Office Action of December 15, 2004

PATENT
Docket: CU-3320

Please replace the paragraph in the Specification page 7, lines 8-14 with the following amended paragraph:

Further, each of the reflection plates 27 is formed integrally with the corresponding backlight lamp 23a so that the reflection plate 27 can rotate together with the backlight lamp 23a. Further, each of the reflection plates 27 surrounding the corresponding backlight lamp 23a has a structure shaped like a partly broken cylinder, that is, has a sectional shape of a perforated circle having an opening through which light can be concentrated and collected on the display panel.

Please replace the paragraph in the Specification page 7, lines 8-14 with the following amended paragraph:

Further, it is important to harmonize a rotation speed of the backlight lamp 23a with a scanning speed of a gate signal. In other words, light of the backlight lamp is concentrated on a pixel synchronized with the signal.

Please insert the following paragraph in the Specification page 7, beginning line 23.

FIG. 4 shows the variation in the directed light area 29 on the display panel 25 due to the rotation of the backlight lamp 23a and/or the reflection plate 27.

Application Serial No. 10/634,392
Reply to Office Action of December 15, 2004

PATENT
Docket: CU-3320

Please replace the paragraph in the Specification page 7, line 24 to page 8, line 3 with the following amended paragraph:

~~FIG. 5 shows~~ FIGs. 5 and 6 show a blink backlight having a reflection plate according to the present invention in detail, in which the reflection plate 27 is turned separately from the backlight lamp 23a by a rotation driver 31.

Please replace the paragraph in the Specification page 8, lines 4-9 with the following amended paragraph:

~~Meanwhile, in another embodiment of the present invention, as shown in FIG. 6~~ That is, a blink backlight 21 is realized by fixing a backlight lamp 23a, and then by rotating a reflection plate 27 together with the rotation driver 31. alone. At this time, a rotation speed of the reflection plate 27 is adapted to match with the scanning speed of the gate.